

What Is Claimed Is:

1. An isolated nucleic acid molecule comprising a nucleotide sequence encoding an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:
- 5 (a) residues 27 to 336 of SEQ ID NO:2;
(b) residues 1 to 441 of SEQ ID NO:4;
(c) residues 25 to 574 of SEQ ID NO:6; and
(d) residues 1 to 388 of SEQ ID NO:8.
- 10 2. The isolated nucleic acid molecule of claim 1 comprising the nucleotide sequence shown as nucleotides 1-1008 of SEQ ID NO:1.
- 15 3. The isolated nucleic acid molecule of claim 1 comprising the nucleotide sequence shown as nucleotides 2-1324 of SEQ ID NO:3.
- 15 4. The isolated nucleic acid molecule of claim 1 comprising the nucleotide sequence shown as nucleotides 130-1751 of SEQ ID NO:5.
- 20 5. The isolated nucleic acid molecule of claim 1 comprising the nucleotide sequence shown as nucleotides 3-1166.
- 25 6. An isolated nucleic acid molecule comprising a nucleotide sequence encoding an amino acid sequence selected from the group consisting of:
- 25 (a) at least 30 contiguous amino acid residues of SEQ ID NO:2;
(b) at least 30 contiguous amino acid residues of SEQ ID NO:4;
(c) at least 30 contiguous amino acid residues of SEQ ID NO:6; and
(d) at least 30 contiguous amino acid residues of SEQ ID NO:8.
- 30 7. A vector comprising the isolated nucleic acid molecule of claim 1.
- 30 8. A nucleic acid molecule comprising the nucleic acid molecule of claim 1 operably associated with a heterologous regulatory element which controls gene expression.
- 35 9. A host cell comprising the vector or claim 7.
- 35 10. A host cell comprising the nucleic acid molecule of claim 8.
- 40 11. An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) residues 27 to 336 of SEQ ID NO:2;
- (b) residues 1 to 441 of SEQ ID NO:4;
- (c) residues 25 to 574 of SEQ ID NO:6; and
- (d) residues 1 to 388 of SEQ ID NO:8.

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12. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- (a) at least 30 contiguous amino acid residues of SEQ ID NO:2;
- (b) at least 30 contiguous amino acid residues of SEQ ID NO:4;
- (c) at least 30 contiguous amino acid residues of SEQ ID NO:6; and
- (d) at least 30 contiguous amino acid residues of SEQ ID NO:8.

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13. An isolated antibody that binds specifically to the isolated polypeptide of claim

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14. A composition comprising the polypeptide of claim 11.

15. A method of making an isolated polypeptide comprising:

- (a) culturing the host cell of claim 10 under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

16. The polypeptide produced by the method of claim 15.

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17. A method for treating a medical condition, comprising administering to a patient a therapeutically effective amount of the polypeptide of claim 11.

18. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

- (a) determining the presence or absence of a mutation in the polynucleotide of claim 1; and
- (b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

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19. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

- (a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample; and

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P A T E N T
A D V I C E

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

20. A method for identifying a binding partner to the polypeptide of claim 11
5 comprising:

- (a) contacting the polypeptide of claim 11 with a binding partner; and
- (b) determining whether the binding partner effects an activity of the polypeptide.

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